Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810304**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-223-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-01	☒ PCB (8082A)
B-224-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-02	☒ PCB (8082A)
B-230-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-03	☒ PCB (8082A)
B-253-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-04	☒ PCB (8082A)
B-229-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810304-05	☒ PCB (8082A)
B-229-101018-1 7FT	10/10/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-06	☒ PCB (8082A)
B-213-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-07	☒ PCB (8082A)
B-214-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-08	☒ PCB (8082A)
B-219-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-09	☒ PCB (8082A)
B-220-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-10	☒ PCB (8082A)
B-231-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-11	☒ PCB (8082A)
B-232-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-12	☒ PCB (8082A)
B-242-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-13	☒ PCB (8082A)
B-248-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-14	☒ PCB (8082A)
B-235-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-15	☒ PCB (8082A)
B-225-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-16	☒ PCB (8082A)
B-226-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-17	☒ PCB (8082A)
B-237-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-18	☒ PCB (8082A)
B-243-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810304-19	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) – MS/MSD analysis run on sample 05. All MS/MSD recoveries within QC limits. RPD for A. 1016 primary column above QC limit; however, given the acceptable results for MS/MSD A.1260 and the field duplicate run on sample 05/06 with good (0%) RPD, no qualification is made as a result of the MS/MSD RPD, based on professional judgment.
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – Sulfur removal by copper cleanup (CC) method performed on samples 01, 05, 06, 13, 15, and 17-19. Method blank and LCS/LCS analyzed in batch with these samples. Results acceptable.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – No dilutions and no raised RLs. No potential data sensitivity issues.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810304

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810305**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-249-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-01	☒ PCB (8082A)
B-247-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-02	☒ PCB (8082A)
B-241-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-03	☒ PCB (8082A)
B-236-101018 7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810305-04	☒ PCB (8082A)
B-236-101018-1 7FT	10/10/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-05	☒ PCB (8082A)
SW-159-101018 4-7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-06	☒ PCB (8082A)
SW-161-101018 4-7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-07	☒ PCB (8082A)
SW-158-101018 0-4FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810305-08	☒ PCB (8082A)
SW-158-101018-1 0-4FT	10/10/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-09	☒ PCB (8082A)
SW-160-101018 0-4FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-10	☒ PCB (8082A)
SW-165-101018 4-7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-11	☒ PCB (8082A)
SW-163-101018 4-7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-12	☒ PCB (8082A)
SW-162-101018 0-4FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-13	☒ PCB (8082A)
SW-164-101018 0-4FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-14	☒ PCB (8082A)
SW-167-101018 4-7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-15	☒ PCB (8082A)
SW-169-101018 4-7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-16	☒ PCB (8082A)
SW-166-101018 0-4FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-17	☒ PCB (8082A)
SW-168-101018 0-4FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810305-18	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) – **MS/MSD analyzed on sample 04: MS recoveries for A.1016 above QC limit. Detected Aroclor 1254 result for sample 04 is considered an estimate (qualified with J).** **MS/MSD analyzed on sample 08: MS recoveries for A.1016 and A.1260 (and MSD recovery for A. 1260 secondary column)above QC limits. Aroclor 1254 result for sample 08 is considered an estimate (qualified with J).**
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 02, 13, and 17, only reporting limits raised were for detected Aroclors. No impact on data sensitivity.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810305

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-236-101018 7FT	PCBs	Aroclor 1254	0.2	mg/kg	**0.2 J**	AM
SW-158-101018 0-4FT	PCBs	Aroclor 1254	1.0	mg/kg	**1.0 J**	AM

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810306**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-171-101018 4-7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810306-01	☒ PCB (8082A)
SW-173-101018 4-7FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810306-02	☒ PCB (8082A)
SW-170-101018 0-4FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810306-03	☒ PCB (8082A)
SW-172-101018 0-4FT	10/10/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810306-04	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 02 and 03, all results reported from diluted runs (10x for both samples), with RLs raised. RLs for all ND results in samples 02 and 03 were below PAL (RL 0.5 mg/kg for PCBs in samples 02 and 03; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810306

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810361**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-202-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-01	☒ PCB (8082A)
SW-204-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-02	☒ PCB (8082A)
SW-203-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-03	☒ PCB (8082A)
SW-205-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-04	☒ PCB (8082A)
SW-206-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-05	☒ PCB (8082A)
SW-208-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-06	☒ PCB (8082A)
SW-207-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-07	☒ PCB (8082A)
SW-209-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-08	☒ PCB (8082A)
SW-212-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-09	☒ PCB (8082A)
SW-213-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-10	☒ PCB (8082A)
SW-188-101118 0-0.5FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-11	☒ PCB (8082A)
SW-190-101118 0-0.5FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-12	☒ PCB (8082A)
SW-192-101118 0-0.5FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-13	☒ PCB (8082A)
B-320-101118 4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-14	☒ PCB (8082A)
B-321-101118 4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-15	☒ PCB (8082A)
B-322-101118 4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-16	☒ PCB (8082A)
B-323-101118 4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-17	☒ PCB (8082A)
B-324-101118 4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-18	☒ PCB (8082A)
B-325-101118 4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-19	☒ PCB (8082A)
B-326-101118 4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810361-20	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 11-14, 18, and 20, only reporting limits raised were for detected Aroclors. No impact on data sensitivity.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810361

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810362**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-174-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-01	☒ PCB (8082A)
SW-176-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-02	☒ PCB (8082A)
SW-175-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-03	☒ PCB (8082A)
SW-177-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-04	☒ PCB (8082A)
SW-194-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-05	☒ PCB (8082A)
SW-196-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-06	☒ PCB (8082A)
SW-195-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-07	☒ PCB (8082A)
SW-197-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-08	☒ PCB (8082A)
SW-198-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-09	☒ PCB (8082A)
SW-200-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810362-10	☒ PCB (8082A)
SW-200-101118-1 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-11	☒ PCB (8082A)
SW-199-101118 4-7FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-12	☒ PCB (8082A)
SW-178-101118 0-0.5FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810362-13	☒ PCB (8082A)
SW-178-101118-1 0-0.5FT	10/11/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-14	☒ PCB (8082A)
SW-180-101118 0-0.5FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-15	☒ PCB (8082A)
SW-182-101118 0-0.5FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-16	☒ PCB (8082A)
SW-184-101118 0-0.5FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-17	☒ PCB (8082A)
SW-186-101118 0-0.5FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810362-18	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Surrogate recoveries - Surrogates for samples 13-15 (primary runs) diluted below MRL. No qualification indicated. **For sample 18, the DCB surrogate recovery was above QC limits in the secondary column; the Aroclor 1254 detected result from sample 18 (reported from secondary column) is considered an estimate (qualified J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) – MS/MSD analyzed on sample 13: MS and MSD recoveries above QC limit for both Aroclors and RPDs for A. 1260 above QC limit. MS/MSD analysis run on undiluted sample in which elevated A. 1254 present in unspiked sample (9.3 mg/kg). The elevated concentration in an undiluted sample interfered with resolution in the calculation of A. 1260 concentrations, and thus the MS/MSD results are not valid. **MS/MSD analyzed on sample 10: MS and MSD recoveries for A.1016 (primary column) and A.1260 (both columns) above QC limits. Aroclor 1254 result for sample 10 is considered an estimate (qualified with J).**
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01-03, 05, 08, and 16-18, only reporting limits raised were for detected Aroclors. No impact on data sensitivity. For samples 13, 14, and 15, all results reported from diluted runs (20x for all listed samples), with RLs raised. RLs for all ND results in samples 13, 14, and 15 were below PAL (maximum RL 1.1 mg/kg; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810362

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
SW-200-101118 0-4FT	PCBs	Aroclor 1254	0.8	mg/kg	**0.8 J**	AM
SW-186-101118 0-0.5FT	PCBs	Aroclor 1254	3.5	mg/kg	**3.5 J**	SA

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810363**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-327-101118 4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-01	☒ PCB (8082A)
SW-263-101118 4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-02	☒ PCB (8082A)
SW-265-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-03	☒ PCB (8082A)
SW-266-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-04	☒ PCB (8082A)
SW-267-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-05	☒ PCB (8082A)
SW-268-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-06	☒ PCB (8082A)
SW-269-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-07	☒ PCB (8082A)
SW-270-101118 0-4FT	10/11/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-08	☒ PCB (8082A)
B-911-101118 0.5FT	10/11/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-09	☒ PCB (8082A)
B-915-101118 0.5FT	10/11/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-10	☒ PCB (8082A)
B-916-101118 0.5FT	10/11/2018	☐ Soil ☒ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810363-11	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☒	Surrogate recoveries - **For the diluted run of sample 06, the DCB surrogate recovery (primary column) and the TMX recovery (secondary column) were above QC limits; the Aroclor 1254 detected result from sample 06 (reported from secondary column of the diluted run) is considered an estimate (qualified J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☐	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01 and 06, only reporting limits raised were for detected Aroclors. No impact on data sensitivity.

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810363

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
SW-268-101118 0-4FT	PCBs	Aroclor 1254	6.7	mg/kg	**6.7 J**	SA

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810409**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-514-C-101218 0-5FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-01	☒ PCB (8082A)
SW-505-B-101218 0-5FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-02	☒ PCB (8082A)
SW-507-C-101218 0-6FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-03	☒ PCB (8082A)
B-806-A-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-04	☒ PCB (8082A)
B-809-A-101218 7FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-05	☒ PCB (8082A)
B-810-A-101218 7FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-06	☒ PCB (8082A)
B-811-A-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-07	☒ PCB (8082A)
B-812-A-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-08	☒ PCB (8082A)
B-815-A-101218 7FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-09	☒ PCB (8082A)
B-820-A-101218 7FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-10	☒ PCB (8082A)
B-803-A-101218 7FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-11	☒ PCB (8082A)
B-843-A-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-12	☒ PCB (8082A)
B-842-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-13	☒ PCB (8082A)
B-841-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-14	☒ PCB (8082A)
B-840-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-15	☒ PCB (8082A)
B-794-A-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-16	☒ PCB (8082A)
B-795-A-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-17	☒ PCB (8082A)
B-798-A-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-18	☒ PCB (8082A)
B-839-101218 8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810409-19	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Surrogate recoveries
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – Sulfur removal by copper cleanup (CC) method performed on samples 04-08, 10-14, and19. Method blank and LCS/LCS analyzed in batch with these samples. Results acceptable.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 08, 10, and 18, only reporting limits raised were for detected Aroclors. No impact on data sensitivity. For samples 04, 07, 09, 11, 13-15, and 17, all results reported from diluted runs (sample 13=20x; samples 04, 07, 14=50x; sample 11=100x; samples 15 and 17=200x; sample 09=1,000x), with RLs raised. RLs for all ND results in samples 04, 07, 11, 13-15, and 17 were below PAL (maximum RL 21.3 mg/kg for sample 17; PAL = 25 mg/kg). The RLs for sample 09 (132 mg/kg) were above the PAL, and therefore there was an impact on data sensitivity. **However, given that the elevated concentration in this sample required additional excavation, and as a result a new confirmatory sample was collected, this does not indicate an impact on final confirmatory sample data sensitivity.**

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810409

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810454**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-565-101218-A 4-8FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-01	☒ PCB (8082A)
SW-556-101218-A 0-4FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-02	☒ PCB (8082A)
SW-554-101218-A 0-4FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-03	☒ PCB (8082A)
SW-553-101218-A 0-4FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-04	☒ PCB (8082A)
SW-552-101218-A 0-4FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-05	☒ PCB (8082A)
SW-582-101218-A 0-4FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-06	☒ PCB (8082A)
SW-580-101218-A 0-4FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-07	☒ PCB (8082A)
SW-583-101218-A 4-7FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-08	☒ PCB (8082A)
SW-578-101218-A 0-4FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-09	☒ PCB (8082A)
SW-579-101218-A 4-7FT	10/12/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-10	☒ PCB (8082A)
SW-687-101518-A 0-2FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-11	☒ PCB (8082A)
SW-75-101518-A 4-6FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-12	☒ PCB (8082A)
SW-64-101518-A 4-6FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-13	☒ PCB (8082A)
SW-77-101518-A 4-6FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-14	☒ PCB (8082A)
SW-91-101518-A 0-1FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-15	☒ PCB (8082A)
SW-93-101518-A 0-1FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-16	☒ PCB (8082A)
SW-89-101518-A 0-4FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-17	☒ PCB (8082A)
SW-87-101518-A 0-4FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-18	☒ PCB (8082A)
SW-79-101518-A 0-4FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-19	☒ PCB (8082A)
SW-81-101518-A 0-4FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810454-20	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Surrogate recoveries - **For the diluted run of sample 01, the DCB surrogate recoveries (both columns) were above QC limits; the Aroclor 1254 detected result from sample 01 is considered an estimate (qualified J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – Sulfur removal by copper cleanup (CC) method performed on samples 01, 02, and 05. Method blank and LCS/LCS analyzed in batch with these samples. Results acceptable.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01, 02, 10, 11, 16, and 18, only reporting limits raised were for detected Aroclors. No impact on data sensitivity. For samples 08, and 12-15, all results reported from diluted runs (samples 08, 12, and 15=20x; sample 14=50x; sample 13=100x), with RLs raised. RLs for all ND results in samples 08, and 12-15 were below PAL (maximum RL 5.7 mg/kg for sample 13; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810454

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
SW-565-101218-A 4-8FT	PCBs	Aroclor 1254	2.9	mg/kg	**2.9 J**	SA

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810473**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-125-101518-A 4FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-01	☒ PCB (8082A)
B-113-101518-A 4FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-02	☒ PCB (8082A)
B-140-101518-A 4FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-03	☒ PCB (8082A)
SW-111-101518-A 0-3FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-04	☒ PCB (8082A)
SW-693-101518-B 0-3FT	10/15/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-05	☒ PCB (8082A)
B-200-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810473-06	☒ PCB (8082A)
B-200-101618-1 1FT	10/16/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-07	☒ PCB (8082A)
B-205-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-08	☒ PCB (8082A)
B-732-101618-A 5FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-09	☒ PCB (8082A)
B-736-101618-A 5FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-10	☒ PCB (8082A)
B-744-101618-A 5FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-11	☒ PCB (8082A)
B-733-101618-A 5FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-12	☒ PCB (8082A)
B-741-101618-A 5FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-13	☒ PCB (8082A)
B-734-101618-A 5FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-14	☒ PCB (8082A)
SW-701-101618-A 0-5FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-15	☒ PCB (8082A)
SW-493-101618-A 0-5FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-16	☒ PCB (8082A)
SW-512-101618-A 0-1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-17	☒ PCB (8082A)
SW-510-101618-A 0-1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-18	☒ PCB (8082A)
SW-494-101618-A 0-5FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810473-19	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness – COC mark up has a "-A" in the sample ID for sample 06; this was not added to the sample log-in ID.
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Surrogate recoveries - Surrogates for samples 02, 03, 06, and 07 (primary runs) diluted below MRL. No qualification indicated. **For sample 08, the DCB surrogate recovery was above QC limits in the secondary column; the Aroclor 1254 detected result from sample 08 (reported from secondary column) is considered an estimate (qualified J).** **For sample 01, diluted run, the DCB surrogate recovery was above QC limits in the secondary column; the Aroclor 1254 detected result from sample 01 (reported from diluted run, secondary column) is considered an estimate (qualified J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) – MS/MSD analyzed on sample 06: MS and MSD recoveries above QC limit for both Aroclors and RPD for A. 1260 (primary column) above QC limit. MS/MSD analysis run on undiluted sample in which elevated A. 1254 present in unspiked sample (20.4 mg/kg). The elevated concentration in an undiluted sample interfered with resolution in the calculation of A. 1260 concentrations, and thus the MS/MSD results are not valid.
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For sample 01, only reporting limit raised was for the detected Aroclor. No impact on data sensitivity. For samples 02-08, 10, 14, and 17-19, all results reported from diluted runs (samples 04, 05, 08, 10, 14, 17, 18, and 19 =10x; samples 02, 03, 06, and 07=50x), with RLs raised. RLs for all ND results in samples 02-08, 10, 14, and 17-19 were below PAL (maximum RL 3.0 mg/kg for sample 02; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810473

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-125-101518-A 4FT	PCBs	Aroclor 1254	2.0	mg/kg	**2.0 J**	SA
B-205-101618 1FT	PCBs	Aroclor 1254	1.8	mg/kg	**1.8 J**	SA

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810474**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-495-101618-A 0-1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-01	☒ PCB (8082A)
SW-514-101618-A 0-1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-02	☒ PCB (8082A)
B-195-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-03	☒ PCB (8082A)
B-193-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-04	☒ PCB (8082A)
B-194-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-05	☒ PCB (8082A)
B-196-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-06	☒ PCB (8082A)
B-197-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-07	☒ PCB (8082A)
B-198-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-08	☒ PCB (8082A)
B-199-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-09	☒ PCB (8082A)
B-201-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-10	☒ PCB (8082A)
B-203-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-11	☒ PCB (8082A)
B-204-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-12	☒ PCB (8082A)
B-206-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-13	☒ PCB (8082A)
B-207-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-14	☒ PCB (8082A)
B-208-101618 1FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-15	☒ PCB (8082A)
SW-50-101618-A 0-3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-16	☒ PCB (8082A)
SW-55-101618-A 0-3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-17	☒ PCB (8082A)
SW-370-101618-A 0-3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-18	☒ PCB (8082A)
B-70-101618 3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-19	☒ PCB (8082A)
B-555-101618 3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810474-20	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Surrogate recoveries - Surrogates for samples 02-06, 08, 09, and 12-15 (primary runs) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01-20, all results reported from diluted runs (samples 01, 07, 10, 11, and 16-20=10x; sample 02=20x; samples 03-06, 08, 09, and 12-15=50x), with RLs raised. RLs for all ND results in samples 01-20 were below PAL (maximum RL 3.0 mg/kg for sample 05; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810474

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810511**; Report Issued **December 19, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-422-092518 1FT	09/25/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-01	☒ PCB (8082A)
B-320-101718-A 5FT	10/17/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-02	☒ PCB (8082A)
B-324-101718-A 5FT	10/17/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-03	☒ PCB (8082A)
B-326-101718-A 5FT	10/17/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-04	☒ PCB (8082A)
B-327-101718-A 5FT	10/17/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-05	☒ PCB (8082A)
SW-53-101618 0-3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-06	☒ PCB (8082A)
SW-54-101618 0-3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-07	☒ PCB (8082A)
SW-56-101618 0-3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-08	☒ PCB (8082A)
B-71-101618 3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810511-09	☒ PCB (8082A)
B-554-101618 3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810511-10	☒ PCB (8082A)
B-556-101618 3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-11	☒ PCB (8082A)
SW-366-101618 0-3FT	10/16/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810511-12	☒ PCB (8082A)
SW-366-101618-1 0-3FT	10/16/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-13	☒ PCB (8082A)
B-71-101618-1 3FT	10/16/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-14	☒ PCB (8082A)
B-554-101618-1 3FT	10/16/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-15	☒ PCB (8082A)
B-520-101718 3FT	10/17/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-16	☒ PCB (8082A)
SW-328-101718 0-3FT	10/17/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-17	☒ PCB (8082A)
B-518-101718 3FT	10/17/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-18	☒ PCB (8082A)
B-521-101718 3FT	10/17/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-19	☒ PCB (8082A)
SW-228-101718 0-3FT	10/17/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-20	☒ PCB (8082A)
SW-329-101718 0-3FT	10/17/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810511-21	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☒	Holding times/Sample preservation – **Sample 01 was extracted 22 days after collection (submitted to lab 22 days after collection). While the extraction was within the method hold time (unspecified for extraction), extraction was performed beyond the QAPP 7-day hold time; therefore, results are considered estimates (qualified J/UJ).**
☒	☐	☐	Surrogate recoveries - Surrogates for samples 06, 09, 10, 13, 15, 17, 20, and 21 (primary runs) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) – MS/MSD analyzed on sample 09: MS and MSD recoveries above QC limit for both Aroclors. MS/MSD analysis run on undiluted sample in which elevated A. 1254 present in unspiked sample (10.7 mg/kg). The elevated concentration in an undiluted sample interfered with resolution in the calculation of A. 1260 concentrations, and thus the MS/MSD results are not valid. MS/MSD analyzed on sample 10: MS and MSD recoveries above QC limit for both Aroclors. MS/MSD analysis run on undiluted sample in which elevated A. 1254 present in unspiked sample (9.7 mg/kg). The elevated concentration in an undiluted sample interfered with resolution in the calculation of A. 1260 concentrations, and thus the MS/MSD results are not valid. **MS/MSD analyzed on sample 12: MS and MSD recoveries for Aroclor 1260 above QC limit. Sample 12 Aroclor 1254 result is considered an estimate (qualified with J).**
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☒	Field duplicate RPDs (if collected) - **RPDs for Aroclor 1242 and 1254 in samples 09/14 and for Aroclor 1254 in samples 10/15 and 12/13 above QC limit; these results are considered estimates (qualified with J).**
☒	☐	☒	Dual Column RPDs (pesticide and PCB aroclors only) – **RPD for Aroclor 1260 in sample 01 above 40% QC limit; result is considered an estimate (qualified with J).**
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01, 07, 08, 11, 12, 14, 18, and 19, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For samples 06, 09, 10, 13, 15, 17, 20, and 21, all results reported from diluted runs (samples 09, 10, 13, 17, 20, and 21 =20x; samples 06 and 15=50x), with RLs raised. RLs for all ND results in samples 06, 09, 10, 13, 15, 17, 20, and 21 were below PAL (maximum RL 2.8 mg/kg for sample 06; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810511

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-422-092518 1FT	PCBs	Aroclor 1248	1.7	mg/kg	**1.7 J**	HT
		Aroclor 1260	0.1	mg/kg	**0.1 J**	HT, DC
		All remaining aroclors	0.06 U	mg/kg	0.06 UJ	HT
B-71-101618 3FT	PCBs	Aroclor 1242	1.1 U	mg/kg	1.1 UJ	DU
		Aroclor 1254	10.7	mg/kg	**10.7 J**	DU
B-554-101618 3FT	PCBs	Aroclor 1254	9.7	mg/kg	**9.7 J**	DU
SW-366-101618 0-3FT	PCBs	Aroclor 1254	5.0	mg/kg	**5.0 J**	DU, AM
SW-366-101618-1 0-3FT	PCBs	Aroclor 1254	9.6	mg/kg	**9.6 J**	DU
B-71-101618-1 3FT	PCBs	Aroclor 1242	1.4	mg/kg	**1.4 J**	DU
		Aroclor 1254	4.4	mg/kg	**4.4 J**	DU
B-554-101618-1 3FT	PCBs	Aroclor 1254	18.8	mg/kg	**18.8 J**	DU

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810533**; Report Issued **November 20, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-399-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-01	☒ PCB (8082A)
B-389-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-02	☒ PCB (8082A)
B-379-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-03	☒ PCB (8082A)
B-368N-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-04	☒ PCB (8082A)
B-408-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-05	☒ PCB (8082A)
B-398-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-06	☒ PCB (8082A)
B-388-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-07	☒ PCB (8082A)
B-378-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-08	☒ PCB (8082A)
B-368-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-09	☒ PCB (8082A)
B-346-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-10	☒ PCB (8082A)
B-347-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-11	☒ PCB (8082A)
B-339-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-12	☒ PCB (8082A)
B-331-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-13	☒ PCB (8082A)
B-332-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-14	☒ PCB (8082A)
B-333-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-15	☒ PCB (8082A)
B-334-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-16	☒ PCB (8082A)
B-340-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-17	☒ PCB (8082A)
B-400-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-18	☒ PCB (8082A)
SW-515-101818-A 0-1FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810533-19	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Surrogate recoveries - Surrogates for samples 01-06, 10-16, 18, and 19 (primary runs) diluted below MRL. No qualification indicated. **The DCB surrogate recoveries for sample 07 primary columns in the undiluted and diluted sample runs were above QC limits; the detected Aroclor 1242 result for sample 07 (taken from primary column) is considered an estimate (qualified with J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01-06 and 10-19, all results reported from diluted runs (sample 17=10x; samples 01-04 and 10-12=20x; samples 05, 06, 14-16, 18 and 19=50x; sample 13=100x), with RLs raised. RLs for all ND results in samples 01-06 and 10-19 were below PAL (maximum RL 5.6 mg/kg for sample 13; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810533

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-388-101818-A 7FT	PCBs	Aroclor 1242	3.1	mg/kg	**3.1 J**	SA

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810534**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-411-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810534-01	☒ PCB (8082A)
B-401-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810534-02	☒ PCB (8082A)
B-391-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810534-03	☒ PCB (8082A)
B-381-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810534-04	☒ PCB (8082A)
B-370-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810534-05	☒ PCB (8082A)
B-410-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810534-06	☒ PCB (8082A)
B-390-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810534-07	☒ PCB (8082A)
B-380-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810534-08	☒ PCB (8082A)
B-369-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810534-09	☒ PCB (8082A)
B-409-101818-A 7FT	10/18/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810534-10	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for samples 03 and 05-10 (primary runs) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01, 02, and 04, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For samples 03 and 05-10, all results reported from diluted runs (samples 03, 05, and 07-10=20x; sample 06=50x), with RLs raised. RLs for all ND results in samples 03 and 05-10 were below PAL (maximum RL 3.3 mg/kg for sample 06; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810534

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810580**; Report Issued **December 19, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-271-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-01	☒ PCB (8082A)
B-272-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-02	☒ PCB (8082A)
B-273-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-03	☒ PCB (8082A)
B-274-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-04	☒ PCB (8082A)
B-275-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-05	☒ PCB (8082A)
B-276-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-06	☒ PCB (8082A)
B-925-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810580-07	☒ PCB (8082A)
B-277-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-08	☒ PCB (8082A)
B-278-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-09	☒ PCB (8082A)
B-290-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-10	☒ PCB (8082A)
B-291-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-11	☒ PCB (8082A)
B-344-101918-A 7FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-12	☒ PCB (8082A)
B-366-101918-A 7FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-13	☒ PCB (8082A)
B-367-101918-A 7FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-14	☒ PCB (8082A)
B-375-101918-A 7FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-15	☒ PCB (8082A)
B-382-101918-A 7FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-16	☒ PCB (8082A)
B-371-101918-A 7FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-17	☒ PCB (8082A)
B-360-101918-A 7FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-18	☒ PCB (8082A)
B-404-101918-A 7FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810580-19	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☒	Surrogate recoveries - Surrogates for samples 16-18 (primary runs) diluted below MRL. No qualification indicated. **The DCB surrogate recoveries for sample 15 (both columns) were above QC limits; the detected Aroclor 1268 result for sample 15 is considered an estimate (qualified with J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - **MS/MSD analyzed on sample 07: MS and MSD recoveries and RPDs for Aroclor 1260 above QC limit. Sample 07 Aroclor 1254 result is considered an estimate (qualified with J).**
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☒	Dual Column RPDs (pesticide and PCB aroclors only) – **RPD for Aroclor 1254 in sample 19 above 40% QC limit; result is considered an estimate (qualified with J).**
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – Sulfur removal by copper cleanup (CC) method performed on sample 15. Method blank and LCS/LCS analyzed in batch with these samples. Results acceptable.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 02-04 and 07-10, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For samples 16, 17, and 18, all results reported from diluted runs (20x for all samples), with RLs raised. RLs for all ND results in samples 16, 17, and 18 were below PAL (maximum RL 1.2 mg/kg for samples 16 and 18; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810580

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-925-101918 2FT	PCBs	Aroclor 1254	1.4	mg/kg	**1.4 J**	AM
B-375-101918-A 7FT	PCBs	Aroclor 1268	0.4	mg/kg	**0.4 J**	SA
B-404-101918-A 7FT	PCBs	Aroclor 1254	0.2	mg/kg	**0.2 J**	DC

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810581**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-926-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810581-01	☒ PCB (8082A)
B-279-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-02	☒ PCB (8082A)
B-927-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810581-03	☒ PCB (8082A)
B-280-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810581-04	☒ PCB (8082A)
B-280-101918-1 2FT	10/19/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-05	☒ PCB (8082A)
B-281-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-06	☒ PCB (8082A)
B-300-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810581-07	☒ PCB (8082A)
B-300-101918-1 2FT	10/19/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-08	☒ PCB (8082A)
B-282-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-09	☒ PCB (8082A)
B-286-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-10	☒ PCB (8082A)
B-283-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-11	☒ PCB (8082A)
B-287-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-12	☒ PCB (8082A)
B-284-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-13	☒ PCB (8082A)
B-288-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-14	☒ PCB (8082A)
B-285-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-15	☒ PCB (8082A)
B-289-101918 2FT	10/19/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810581-16	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for samples 03, 07, and 08 (primary runs) diluted below MRL. No qualification indicated.

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - MS/MSD analyzed on sample 01: MS and MSD recoveries and RPDs for Aroclor 1016 within QC limits; MS/MSD results for A. 1260 not calculated as the native concentration in the sample was significantly greater than the spiked concentration, making the QC result invalid. MS/MSD analyzed on samples 03 and 07: most or all of the MS and MSD recoveries above QC limit for both Aroclors. MS/MSD analyses were run on undiluted samples in which elevated A. 1254 was present in unspiked samples (9.5 and 16.1 mg/kg, respectively). The elevated concentrations in an undiluted samples interfered with resolution in the calculation of A. 1260 concentrations, and thus the MS/MSD results are not valid. **MS/MSD analyzed on sample 04: MS and MSD recoveries for Aroclor 1260, and MS primary column recovery for Aroclor 1016, above QC limit. Sample 04 Aroclor 1254 result is considered an estimate (qualified with J).**
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01, 02, 04-06, and 09-13, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For samples 03, 07, and 08, all results reported from diluted runs (20x for all samples), with RLs raised. RLs for all ND results in samples 03, 07, and 08 were below PAL (maximum RL 1.2 mg/kg for samples 07 and 08; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810581

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-280-101918 2FT	PCBs	Aroclor 1254	2.6	mg/kg	**2.6 J**	AM

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810626**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-309-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-01	☒ PCB (8082A)
B-292-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-02	☒ PCB (8082A)
B-310-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-03	☒ PCB (8082A)
B-293-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-04	☒ PCB (8082A)
B-311-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-05	☒ PCB (8082A)
B-294-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-06	☒ PCB (8082A)
B-312-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-07	☒ PCB (8082A)
B-295-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-08	☒ PCB (8082A)
B-313-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-09	☒ PCB (8082A)
B-314-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-10	☒ PCB (8082A)
B-296-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-11	☒ PCB (8082A)
B-315-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-12	☒ PCB (8082A)
B-297-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-13	☒ PCB (8082A)
B-316-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-14	☒ PCB (8082A)
B-930-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-15	☒ PCB (8082A)
B-298-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-16	☒ PCB (8082A)
B-317-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-17	☒ PCB (8082A)
B-299-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-18	☒ PCB (8082A)
B-318-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-19	☒ PCB (8082A)
B-301-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810626-20	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Holding times/Sample preservation
☒	☐	☒	Surrogate recoveries - Surrogates for samples 01 and 19 (primary runs) diluted below MRL. No qualification indicated. **The DCB and TMX surrogate recoveries, both columns, for sample 15 in the diluted sample run were above QC limits; the detected Aroclor 1254 result for sample 15 (taken from diluted run) is considered an estimate (qualified with J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 02-05, 07-11, 13-18, and 20, the only reporting limits raised were for the detected Aroclors. No impact on data sensitivity. For samples 01 and 19, all results reported from diluted runs (20x for both samples), with RLs raised. RLs for all ND results in samples 01 and19 were below PAL (maximum RL 1.1 mg/kg for both samples; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810626

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-930-102218 2FT	PCBs	Aroclor 1254	4.7	mg/kg	**4.7 J**	SA

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810627**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-319-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-01	☒ PCB (8082A)
B-302-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-02	☒ PCB (8082A)
B-303-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-03	☒ PCB (8082A)
B-923-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810627-04	☒ PCB (8082A)
B-304-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-05	☒ PCB (8082A)
B-924-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-06	☒ PCB (8082A)
B-305-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-07	☒ PCB (8082A)
B-928-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-08	☒ PCB (8082A)
B-306-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-09	☒ PCB (8082A)
B-929-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-10	☒ PCB (8082A)
B-307-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-11	☒ PCB (8082A)
B-308-102218 2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-12	☒ PCB (8082A)
SW-236-102218 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-13	☒ PCB (8082A)
SW-237-102218 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-14	☒ PCB (8082A)
SW-238-102218 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-15	☒ PCB (8082A)
SW-239-102218 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-16	☒ PCB (8082A)
SW-241-102218 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-17	☒ PCB (8082A)
SW-242-102218 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810627-18	☒ PCB (8082A)
SW-240-102218 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810627-19	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness - Sample 1810628-01 is a field duplicate of sample 1810627-19; duplicate evaluation reported below.
☒	☐	☐	Holding times/Sample preservation

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Surrogate recoveries - Surrogates for sample 12 (primary run) diluted below MRL. No qualification indicated. DCB surrogate recoveries for samples 11 and 13 (primary column) was above QC limits; however, as the Aroclor 1254 detected results were reported from the secondary column for both samples (with acceptable surrogate recoveries), no qualification to data is indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - MS/MSD analyzed on samples 04 and 19: all of the MS and MSD Aroclor 1260 percent recoveries above QC limit for sample 04, and all MS percent recoveries in MS and all Aroclor 1260 recoveries in the MSD above QC limit for sample 19. MS/MSD analyses were run on undiluted samples in which elevated Aroclor 1254 concentrations were present in unspiked samples (2.3 and 8.9 mg/kg, respectively). The elevated concentrations in the undiluted samples interfered with resolution in the calculation of MS/MSD concentrations, and thus the MS/MSD results are not valid. (All MS/MSD RPD within QC limit for both samples.)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☐	Field duplicate RPDs (if collected) - Sample 1810628-01 is field duplicate of sample 1810659-16; duplicate evaluation finds acceptable results.
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01-06, 08, and 10-19, all results reported from diluted runs (50x for sample 12, and 10x for all remaining samples), with RLs raised. RLs for all ND results in samples 01-06, 08, and 10-19 were below PAL (maximum RL 2.9 mg/kg for sample 12; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810627

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810628**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-240-102218-1 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-01	☒ PCB (8082A)
SW-243-102218 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-02	☒ PCB (8082A)
SW-244-102218 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-03	☒ PCB (8082A)
SW-20-102218 0-3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-04	☒ PCB (8082A)
SW-395-102218 0-3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-05	☒ PCB (8082A)
B-605-102218 3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-06	☒ PCB (8082A)
SW-512-102218-B 0-4FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-07	☒ PCB (8082A)
B-734-102218-B 6FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-08	☒ PCB (8082A)
SW-514-102218-B 0-4FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-09	☒ PCB (8082A)
B-24-102218 3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-10	☒ PCB (8082A)
B-606-102218 3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-11	☒ PCB (8082A)
B-607-102218 3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-12	☒ PCB (8082A)
SW-393-102218 0-3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810628-13	☒ PCB (8082A)
SW-394-102218 0-3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810628-14	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness – MS/MSD requested on COC for sample SW-240-102218 0-2FT; as this native sample is reported in data package 1810627, the MS/MSD analysis is also reported in that package. Field duplicate sample 1810628-01 is duplicate of sample 1810627-19; duplicate evaluation reported in validation report for data package 1810627.
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for sample 06 (primary run) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - MS/MSD analyzed on sample 13: all of the MS and MSD percent recoveries above QC limit. MS/MSD analyses were run on undiluted sample in which an elevated Aroclor 1254 concentration was present in unspiked sample (8.9 mg/kg). The elevated concentration in the undiluted sample interfered with resolution in the calculation of MS/MSD sample concentrations, and thus the MS/MSD results are not valid. (All MS/MSD RPDs within QC limit.)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected) - Sample 1810628-01 is field duplicate of sample 1810627-19; duplicate evaluation reported in report for 1810627.
☒	☐	☒	Dual Column RPDs (pesticide and PCB aroclors only) – **RPD for Aroclor 1254 in sample 07 above 40% QC limit; result is considered an estimate (qualified with J).**
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – Sulfur removal by copper cleanup (CC) method performed on sample 08. Method blank and LCS/LCS analyzed in batch with these samples. Results acceptable.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01, 02, 04-07, and 10-14, all results reported from diluted runs (50x for sample 06, and 10x for all remaining samples), with RLs raised. RLs for all ND results in samples 01, 02, 04-07, and 10-14 were below PAL (maximum RL 2.9 mg/kg for sample 06; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810628

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
SW-512-102218-B 0-4FT	PCBs	Aroclor 1254	0.5	mg/kg	**0.5 J**	DC

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810629**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-736-102218-B 6FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810629-01	☒ PCB (8082A)
SW-494-102218-B 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810629-02	☒ PCB (8082A)
SW-495-102218-B 0-2FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810629-03	☒ PCB (8082A)
SW-17-102218 0-3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810629-04	☒ PCB (8082A)
SW-18-102218 0-3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810629-05	☒ PCB (8082A)
SW-22-102218 0-3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810629-06	☒ PCB (8082A)
SW-23-102218 0-3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810629-07	☒ PCB (8082A)
SW-24-102218 0-3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810629-08	☒ PCB (8082A)
B-22-102218 3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810629-09	☒ PCB (8082A)
B-23-102218 3FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810629-10	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☒	Surrogate recoveries - Surrogates for samples 02 and 03 (primary run) diluted below MRL. No qualification indicated. **The DCB surrogate recoveries, both columns, for sample 10 were above QC limits; the detected Aroclor 1254 result for sample 10 is considered an estimate (qualified with J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 02-06 and 08-10, all results reported from diluted runs (50x for samples 02 and 03, and 10x for remaining samples), with RLs raised. RLs for all ND results in samples 02-06 and 08-10 were below PAL (maximum RL 3.0 mg/kg for sample 02; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810629

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-23-102218 3FT	PCBs	Aroclor 1254	1.5	mg/kg	**1.5 J**	SA

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810658**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-731-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-01	☒ PCB (8082A)
B-931-102318 2FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-02	☒ PCB (8082A)
B-932-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-03	☒ PCB (8082A)
B-933-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810658-04	☒ PCB (8082A)
B-934-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-05	☒ PCB (8082A)
B-935-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-06	☒ PCB (8082A)
B-936-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-07	☒ PCB (8082A)
B-937-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-08	☒ PCB (8082A)
B-938-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-09	☒ PCB (8082A)
B-716-102318-1 4FT	10/23/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-10	☒ PCB (8082A)
B-933-102318-1 4FT	10/23/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-11	☒ PCB (8082A)
B-145-102318-A 10FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-12	☒ PCB (8082A)
B-149-102318-A 10FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-13	☒ PCB (8082A)
B-146-102318-A 10FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-14	☒ PCB (8082A)
B-154-102318-A 10FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-15	☒ PCB (8082A)
B-155-102318-A 10FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-16	☒ PCB (8082A)
B-152-102318-A 10FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-17	☒ PCB (8082A)
SW-133-102318-A 0-2FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810658-18	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness – MS/MSD requested on COC for sample B-716-102318 4FT; as this native sample is reported in data package 1810659, the MS/MSD analysis is also reported in that package. Field duplicate sample 1810658-10 is duplicate of sample 1810659-16; duplicate evaluation reported in validation report for data package 1810659.

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for samples 12, 13, and 15-18 (primary runs) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - **MS/MSD analyzed on sample 04: MS and MSD recoveries for Aroclor 1260 above QC limit, likely due to elevated concentration of Aroclor 1254 in unspiked sample. Sample 04 Aroclor 1254 result is considered an estimate (qualified with J).**
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☐	Field duplicate RPDs (if collected) – Sample 1810658-10 is field duplicate of sample 1810659-16; duplicate evaluation reported in report for 1810659. Field duplicate evaluation of 1810658-04/11 indicates acceptable results.
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) –For samples 01, 04-06, 09, and 11-18, all results reported from diluted runs (10x for samples 01, 04-06, 09, 11, and 14; 50x for samples 12, 16, and 18; 100x for samples 13, 15, and 17), with RLs raised. RLs for all ND results in samples 01, 04-06, 09, and 11-18 were below PAL (maximum RL 6.8 mg/kg for samples 15 and 17; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810658

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-933-102318 4FT	PCBs	Aroclor 1254	0.9	mg/kg	**0.9 J**	AM

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810659**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-113-102218-B 6FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-01	☒ PCB (8082A)
B-140-102218-B 6FT	10/22/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-02	☒ PCB (8082A)
SW-64-102318-B 4-6FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-03	☒ PCB (8082A)
SW-77-102318-B 4-6FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-04	☒ PCB (8082A)
B-193-102318-A 2FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-05	☒ PCB (8082A)
B-706-102318 1FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-06	☒ PCB (8082A)
B-707-102318 1FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-07	☒ PCB (8082A)
B-708-102318 1FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-08	☒ PCB (8082A)
B-709-102318 1FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-09	☒ PCB (8082A)
B-710-102318 1FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-10	☒ PCB (8082A)
B-711-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-11	☒ PCB (8082A)
B-712-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-12	☒ PCB (8082A)
B-713-102318 1FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-13	☒ PCB (8082A)
B-714-102318 1FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-14	☒ PCB (8082A)
B-715-102318 1FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-15	☒ PCB (8082A)
B-716-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810659-16	☒ PCB (8082A)
B-717-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-17	☒ PCB (8082A)
B-718-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-18	☒ PCB (8082A)
B-719-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-19	☒ PCB (8082A)
B-720-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810659-20	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness – Sample 1810658-10 is a field duplicate of sample 1810659-16; duplicate evaluation reported below.
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for samples 02-05 (primary runs) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - **MS/MSD analyzed on sample 16: MSD recoveries for Aroclor 1260 above QC limit (and RPD for A. 1260 2C). Sample 16 Aroclor 1254 result is considered an estimate (qualified with J).**
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☐	Field duplicate RPDs (if collected) – Sample 1810658-10 is field duplicate of sample 1810659-16; duplicate evaluation finds acceptable results.
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01-05, 07, 10, 13, and 14, all results reported from diluted runs (10x for samples 01, 07, 10, 13, and 14; 50x for samples 03-05; 100x for sample 02), with RLs raised. RLs for all ND results in samples 01-05, 07, 10, 13, and 14 were below PAL (maximum RL 5.8 mg/kg for sample 02; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810659

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-716-102318 4FT	PCBs	Aroclor 1254	0.5	mg/kg	**0.5 J**	AM

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810660**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-721-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-01	☒ PCB (8082A)
B-722-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-02	☒ PCB (8082A)
B-723-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-03	☒ PCB (8082A)
B-724-102318 2FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-04	☒ PCB (8082A)
B-725-102318 2FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-05	☒ PCB (8082A)
B-726-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-06	☒ PCB (8082A)
B-727-102318 1FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-07	☒ PCB (8082A)
B-728-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-08	☒ PCB (8082A)
B-729-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-09	☒ PCB (8082A)
B-730-102318 4FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-10	☒ PCB (8082A)
B-88-102318-C 10FT	10/23/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810660-11	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for sample 11 (primary run) diluted below MRL. No qualification indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 04, 05, 09, and 11, all results reported from diluted runs (10x for samples 04, 05, and 09; 50x for sample 11), with RLs raised. RLs for all ND results in samples 04, 05, 09, and 11 were below PAL (maximum RL 2.9 mg/kg for sample 11; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810660

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
None	None	No data qualifications				

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810703**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-641-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-01	☒ PCB (8082A)
B-642-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-02	☒ PCB (8082A)
B-643-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-03	☒ PCB (8082A)
B-644-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-04	☒ PCB (8082A)
B-645-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-05	☒ PCB (8082A)
B-646-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-06	☒ PCB (8082A)
B-647-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-07	☒ PCB (8082A)
B-648-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-08	☒ PCB (8082A)
B-649-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-09	☒ PCB (8082A)
B-650-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-10	☒ PCB (8082A)
B-705-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-11	☒ PCB (8082A)
B-939-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-12	☒ PCB (8082A)
B-940-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-13	☒ PCB (8082A)
SW-447-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-14	☒ PCB (8082A)
SW-448-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-15	☒ PCB (8082A)
SW-449-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-16	☒ PCB (8082A)
SW-450-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-17	☒ PCB (8082A)
SW-451-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-18	☒ PCB (8082A)
SW-452-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-19	☒ PCB (8082A)
SW-453-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810703-20	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☒	Surrogate recoveries - **The TMX surrogate recoveries for samples 11, 18, and 19 (primary columns) were above QC limits; the detected Aroclor 1254 results for sample 11, 18, and 19 are considered estimates (qualified with J).**
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☐	☒	☐	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample)
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☐	☒	☐	Field duplicate RPDs (if collected)
☒	☐	☒	Dual Column RPDs (pesticide and PCB aroclors only) – **RPDs for Aroclor 1248 in samples 02 and 05 above 40% QC limit; results are considered estimates (qualified with J).**
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 03, 07, 08, 11-13, and 16-20, all results reported from diluted runs (10x for all samples), with RLs raised. RLs for all ND results in samples 03, 07, 08, 11-13, and 16-20 were below PAL (maximum RL 0.6 mg/kg for samples 03 and 08; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810703

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
B-642-102418 2FT	PCBs	Aroclor 1248	0.1	mg/kg	**0.1 J**	DC
B-645-102418 2FT	PCBs	Aroclor 1248	0.2	mg/kg	**0.2 J**	DC
B-705-102418 2FT	PCBs	Aroclor 1254	1.4	mg/kg	**1.4 J**	SA
SW-451-102418 0-2FT	PCBs	Aroclor 1254	4.2	mg/kg	**4.2 J**	SA
SW-452-102418 0-2FT	PCBs	Aroclor 1254	2.9	mg/kg	**2.9 J**	SA

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810704**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
SW-454-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-01	☒ PCB (8082A)
SW-455-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-02	☒ PCB (8082A)
SW-456-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-03	☒ PCB (8082A)
SW-457-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-04	☒ PCB (8082A)
SW-458-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-05	☒ PCB (8082A)
SW-459-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-06	☒ PCB (8082A)
SW-460-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810704-07	☒ PCB (8082A)
SW-460-102418-1 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-08	☒ PCB (8082A)
SW-461-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-09	☒ PCB (8082A)
SW-462-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-10	☒ PCB (8082A)
SW-463-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-11	☒ PCB (8082A)
SW-464-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-12	☒ PCB (8082A)
SW-472-102418 0-4FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-13	☒ PCB (8082A)
SW-473-102418 0-4FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-14	☒ PCB (8082A)
SW-474-102418 0-4FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-15	☒ PCB (8082A)
SW-475-102418 0-4FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-16	☒ PCB (8082A)
SW-465-102418 0-2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-17	☒ PCB (8082A)
SW-476-102418 0-4FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-18	☒ PCB (8082A)
SW-477-102418 0-4FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810704-19	☒ PCB (8082A)
SW-477-102418-1 0-4FT	10/24/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810704-20	☒ PCB (8082A)

Analytical data were evaluated for the following criteria:

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Data completeness
☒	☐	☐	Holding times/Sample preservation
☒	☐	☐	Surrogate recoveries - Surrogates for sample 18 (primary run) diluted below MRL. No qualification indicated. The TMX surrogate recovery for sample 02 (primary column) was above QC limits; however, as this indicates potential positive bias and no PCBs were detected in the sample, no qualifications are indicated. The DCB surrogate recovery for sample 19 (primary column) was above QC limits; however, as the Aroclor 1254 detected result was reported from the secondary column (with acceptable surrogate recovery), no qualification to data is indicated.
☒	☐	☐	Batch laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and relative percent differences (RPDs)
☒	☐	☒	Batch matrix spike/matrix spike duplicate (MS/MSD) recoveries and RPDs (if performed on project-specific sample) - **MS/MSD analyzed on sample 07: MSD recoveries and RPDs for Aroclor 1016 and MS and MSD recoveries and Primary column RPD for Aroclor 1260 above QC limits. Sample 07 Aroclor 1254 result is considered an estimate (qualified with J).** **MS/MSD analyzed on sample 19: MSD recovery (secondary column) for Aroclor 1016 and MS and MSD recoveries for Aroclor 1260 above QC limits. Sample 19 Aroclor 1254 result is considered an estimate (qualified with J).**
☐	☒	☐	Laboratory duplicate RPDs (if performed)
☒	☐	☒	Field duplicate RPDs (if collected) - **RPD for Aroclor 1254 in samples 07/08 and RPD for Aroclor 1254 in samples 19/20 above QC limit; these results are considered estimates (qualified with J).**
☒	☐	☐	Dual Column RPDs (pesticide and PCB aroclors only)
☒	☐	☐	Method blank results
☐	☒	☐	Field/equipment blank results (if collected)
☐	☒	☐	Trip blank results
☒	☐	☐	Acceptable initial calibration performed on instrument (evaluated for extreme QC failures)
☒	☐	☐	Acceptable continuing calibration performed on instrument, and analytical sequence (evaluated for extreme QC failures)
☒	☐	☐	Sulfur Removal (pesticide and PCB aroclors only) – not performed/required on any sample in data set.

Evaluated	Eval Not Required	Data Qualified	Evaluation Criteria
☒	☐	☐	Percent solids
☐	☒	☐	Mass spectrometer tuning (GC/MS only)
☐	☒	☐	Internal standard performance (GC/MS only)
☐	☒	☐	Interference check sample results (metals only)
☐	☒	☐	ICP serial dilution results (metals only)
☒	☐	☐	Reporting limits and sample results (limited to evaluating dilutions and reanalysis) – For samples 01, 03-11, 14, 15, and 18-20, all results reported from diluted runs (50x for sample 18; 10x for all remaining samples), with RLs raised. RLs for all ND results in samples 01, 03-11, 14, 15, and 18-20 were below PAL (maximum RL 2.7 mg/kg for sample 18; PAL = 25 mg/kg).

Data Validation Performed and Documented by:

Veronica J. Champagne, Data Validator
AEI Consultants Environmental & Engineering Services

Table 1
Summary of Qualified Data
ESS Laboratory Report 1810704

Sample	Analysis	Compound	Original Result	Units	Data Validation-Based Result	Reason Code
SW-460-102418 0-2FT	PCBs	Aroclor 1254	0.8	mg/kg	**0.8 J**	DU, AM
SW-460-102418-1 0-2FT	PCBs	Aroclor 1254	3.3	mg/kg	**3.3 J**	DU
SW-477-102418 0-4FT	PCBs	Aroclor 1254	1.7	mg/kg	**1.7 J**	DU, AM
SW-477-102418-1 0-4FT	PCBs	Aroclor 1254	0.8	mg/kg	**0.8 J**	DU

mg/kg = milligrams per kilogram or parts per million (ppm)
Bold indicates detected final concentration
Reason codes are defined within Table 2.

Table 2
Qualifier and Reason Code Definitions

Qualifier Codes	Definition
J	Estimated detected result
UJ	Estimated reporting limit (non-detected result)
U	Non-detected result
R	Unusable result
Reason Codes	Definition
AM	MS or MSD recovery above QC limits
BM	MS or MSD recovery below QC limits (If associated with R qualifier, recovery was below 10%)
CCV	QC issue identified with Continuing Calibration Verification
CS	LCS or LCSD recovery or RPD outside QC limits
DC	Dual column RPD above QC limit.
DU	Field or laboratory duplicate results outside QC limits
EB	Equipment blank contamination
HT	Sample extracted or analyzed past holding time
ICC	QC issue identified with Initial Calibration
ICV	QC issue identified with Initial Calibration Verification
MB	Method blank contamination
MR	MS/MSD RPD above QC limit
OC	Concentration over instrument calibration range. Sample re-run at further dilution, with result within calibration range reported from secondary run.
PR	Preservation Issue
RL	Detected concentration above MDL but below Reporting Limit (as reported by laboratory)
SA	Surrogate recovery above QC limit
SB	Surrogate recovery below QC limit
TB	Trip blank contamination

ESS Laboratory – Laboratory Work Order Number **1810705**; Report Issued **November 29, 2018**
Summary of Samples Submitted to Laboratory:

Sample ID	Date Collected	Media	QC Sample	Lab Sample ID	Analyses
B-687-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-01	☒ PCB (8082A)
B-688-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-02	☒ PCB (8082A)
B-689-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-03	☒ PCB (8082A)
B-690-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-04	☒ PCB (8082A)
B-691-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-05	☒ PCB (8082A)
B-692-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-06	☒ PCB (8082A)
B-693-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-07	☒ PCB (8082A)
B-694-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-08	☒ PCB (8082A)
B-695-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-09	☒ PCB (8082A)
B-696-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-10	☒ PCB (8082A)
B-697-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-11	☒ PCB (8082A)
B-698-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-12	☒ PCB (8082A)
B-699-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-13	☒ PCB (8082A)
B-700-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☒ MS/MSD ☐ EB ☐ TB	1810705-14	☒ PCB (8082A)
B-700-102418-1 2FT	10/24/2018	☒ Soil ☐ Concrete	☒ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-15	☒ PCB (8082A)
B-701-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-16	☒ PCB (8082A)
B-702-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-17	☒ PCB (8082A)
B-703-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-18	☒ PCB (8082A)
B-704-102418 2FT	10/24/2018	☒ Soil ☐ Concrete	☐ FD ☐ MS/MSD ☐ EB ☐ TB	1810705-19	☒ PCB (8082A)